Journal of Management OnlineFirst, published on February 6, 2009 as doi:10.1177/0149206308330557

Fairness at the Group Level: Justice Climate and Intraunit Justice Climate†

Andrew Li*

Department of Management, Marketing, and General Business, College of Business, West Texas A&M University, Canyon, TX 79016

Russell Cropanzano

Department of Management and Organizations, Eller College of Management, University of Arizona, Tucson, AZ 85721-0108

Like many constructs within the managerial sciences, organizational justice has traditionally been conceptualized as an individual-level phenomenon. In recent years, this has begun to change, as a number of research studies have explored justice as a collective or group-level construct. The authors provide a review of this literature, historically tracing the growth of this research tradition, reviewing measurement issues, and discussing available research findings. The authors argue that there are at least two viable treatments of unit-level justice. Justice climate *pertains to the manner in which a team is treated by outside agents, such as an authority figure.* Intraunit justice climate *pertains to the manner in which teammates treat one another. Although much more research is needed, evidence suggests that both justice climate and intraunit fairness are useful predictors of work attitudes and behavior.*

Keywords: *justice climate; intraunit justice climate; organizational justice*

† Both authors would like to thank Tom Wright for his very helpful comments. We would also like to acknowledge the assistance of those scholars who made their measures available to us: Karl Aquino, Kevin Mossholder, Jason Colquitt, Stephanie Naumann, Sandra Robinson, Deb Rupp, and Tony Simon.

**Corresponding author. Tel.: 806-651-2496; Fax: 806-651-2488*

E-mail address: ali@mail.wtamu.edu

Journal of Management, Vol. XX No. X, Month XXXX xx-xx
DOI: 10.1177/0149206308330557

Over the past few decades, organizational justice has become a central topic in the management sciences, having been the subject of a number of review articles (e.g., Cropanzano, Byrne, Bobocel, & Rupp, 2001; Cropanzano, Rupp, Mohler, & Schminke, 2001; Konovsky, 2000), books (e.g., Folger & Cropanzano, 1997; Sheppard, Lewicki, & Minton, 1993), and meta-analyses (e.g., Cohen-Charash & Spector, 2001; Colquitt, Conlon, Wesson, Porter, & Ng, 2001). The evidence is encouraging. These reviews show that fair organizations benefit from employees' higher job performance, more helpful organizational citizenship behaviors (OCB), and better work attitudes. Workers benefit as well. When fairly treated, they report better mental health (Spell & Arnold, 2007) and less stress (Cropanzano, Goldman, & Benson, 2005; Cropanzano & Wright, in press). Findings such as these have led scholars to apply justice concepts to a number of human resource procedures (Cropanzano, Bowen, & Gilliland, 2007). There has been important research on personnel selection (Gilliland, 1994), performance evaluation (Korsgaard & Roberson, 1995), drug testing (Konovsky & Cropanzano, 1991), layoff process (Konovsky & Brockner, 1993), reward distribution (Dulebohn & Martocchio, 1998; Scarpello & F. F. Jones, 1996), and conflict resolution (Goldman, Cropanzano, Stein, & Benson, 2008).

Despite these scholarly and practical achievements, much of the organizational fairness literature tends to share a common constraint. In particular, it has been conducted at the individual level, with only scant attention devoted to group-level investigations. This is potentially problematic because, as we shall shortly see, there is sufficient evidence that justice operationalized at the level of the work team, what has been termed *justice climate*, is an important predictor of organizationally relevant criteria (Ambrose & Schminke, 2007; Rupp, Bashshur, & Liao, 2007a, 2007b). In this article, we shall address this limitation. First, we will provide our readers with a brief overview of the justice literature, articulating the key ideas and concepts. Then, we shall look closely at the idea of group-level justice, articulating its conceptual meaning. Afterward, we turn our attention to the available empirical literature, considering two types of justice climate—justice climate, the degree of fairness perceived by the team as a whole, and *intra*unit justice climate, the degree of fairness with which team members treat each other.

The Structure of Organizational Justice

General Definitions

Scholarly research on organizational justice seeks to understand what working individuals believe to be fair, as well as their responses to (in)justice. This scholarly tradition has been called "descriptive" (Cropanzano, Bowen, & Gilliland, 2007) or "empirically oriented" (Sabbagh, 2001) because it emphasizes the subjective perceptions of individuals. In descriptive theories of justice, an event becomes unfair only after some individual makes a judgment or evaluation. As one might imagine given this orientation, a good deal of research has gone into understanding how individuals formulate their judgments of justice and injustice. Research suggests that people emphasize three sets of factors—the outcomes of a decision or the allocation of some goods, the processes or policies that are used to make decisions,

and the interpersonal treatment that one person receives from another. The evaluation of each class of events—outcomes, processes, and interactions—against a standard of appropriate conduct, results in at least three types of fairness (Konovsky, 2000).

Distributive justice pertains to the fairness of the outcomes that one receives (Frohlich, 2007; Sabbagh, 2001, Markovsky & Younts, 2001). Probably the best known theory of distributive justice is Adams's (1963, 1965) equity theory, which posits that the fairest allocations are those that reward people in proportion to their contributions. In addition to equity, there are other allocation standards, such as equality and need. People often try to balance these rules by using them in combinations (Frohlich & Oppenheimer, 1992). Generally speaking, there is little research on collective perceptions of distributive justice, which is unfortunate given some recent promising findings (e.g., Roberson, 2006a; Spell & Arnold, 2007).

Procedural justice involves the perceived fairness of an allocation process. According to Leventhal, Karuza, and Fry (1980; Leventhal, 1976, 1980), the following six attributes make processes fair: consistency, freedom from bias, accuracy, representativeness for all stakeholders, correctability, and consistency with ethical standards. As we shall illustrate later, procedural justice has had by far the most influence on justice climate research (e.g., Mossholder, Bennett, & Martin, 1998; Naumann & Bennett, 2000, 2002).

Interactional justice concerns the fairness of the interpersonal treatment one receives from others (e.g., Bies, 2001, 2005; Bies & Moag, 1986). In their initial work, Bies and Moag (1986) emphasized the dignity and respect with which decision makers treated others. Bies (1987) expanded on these ideas, arguing that it was also important for organizations to share information and provide adequate explanations regarding important decisions (Shaw, Wild, & Colquitt, 2003; Sitkin & Bies, 1993; Sitkin, Sutcliffe, & Reed, 1993). Colquitt (2001) treats these two types of interactional justice separately, referring to the former as "interpersonal justice" and the latter as "informational justice." Notice that Colquitt's framework creates a four-factor model of justice (distributive, procedural, interpersonal, and informational) that has received empirical support (Colquitt et al., 2001; Masterson, Byrne, & Mao, 2005). Within justice climate research, a few scholars have begun to successfully employ Colquitt's four-factor model (e.g., Liao & Rupp, 2005; Mayer, Nishii, Schneider, & Goldstein, 2007), whereas others have continued to employ the original three-factor conceptualization (e.g., Moliner, Martinez-Tur, Peiro, Ramos, & Cropanzano, 2005).

Justice as a Unit-Level Phenomenon

Historically, scholars of organizational justice have been mindful of how fairness affects team processes. As one would expect, workers are happier and teams function more smoothly when group members believe that they are treated fairly (e.g., R. G. Jones & Lindley, 1998; Kirkman, R. G. Jones, & Shapiro, 2000; Kirkman, Shapiro, Novelli, & Brett, 1996; Philips, 2002; Phillips, Douthitt, & Hyland, 2001). Although this work has been useful and informative, it has tended to be conducted at the individual level. As Mossholder et al. (1998) pointed out, such an individualistic approach fails to take full account of the social context within which justice perceptions are shaped. Within a unit, members interact with each other, observe each other's behavior, and engage in collective sense

making, a tendency that may ultimately lead to the development of shared perceptions on how to evaluate justice-triggering events (Naumann & Bennett, 2000; Roberson, 2006a, 2006b). Consistent with this argument, recent research has suggested that justice can be viewed as an emergent property formed in the course of interactions among members within the same unit.

Morgeson and Hofmann (1999) provide a useful framework for understanding how an individual-level construct can be conceptualized at the unit level. Specifically, these authors argue that there are two approaches to understanding collective constructs: *structural* and *functional*. According to the structural approach, collective constructs originate from individuals and are formed in the course of the interactions among members within the same unit. Individuals do not operate in a vacuum. Instead, they are constantly influenced by other people within their work unit. Through ongoing information sharing, collective sense making, and mutual influences, members come to share a similar interpretation of events. An interesting demonstration of this possibility was provided by D. A. Jones and Skarlicki (2005). These authors argued that a person's evaluation of a supervisor may be colored by the supervisor's fairness reputation. This reputation, for its part, could come from discussion with peers. Specifically, in their study, some individuals were led to expect fair treatment based on their peers' comments on the reputation of the supervisor. However, when they were instead treated unfairly, they reacted particularly negatively.

The functional approach is different, in that it emphasizes the effects of a unit-level construct within an organizational system. A construct is understood, at least in part, by its consequences; it becomes meaningful when it produces certain effects. When individual-level constructs have similar effects to their group-level counterparts, then this construct is considered to be functionally isomorphic across levels. Although this assumption is not typically stated explicitly, unit-level justice researchers have argued for this sort of cross-level isomorphism. Let us illustrate this with two examples.

In the simpler case, both the individual-level and unit-level predictors can be associated with the same individual-level criterion variable. To illustrate, there is a good deal of research showing that that individual-level perceptions of fairness predict helpful OCB at the individual level (e.g., Masterson, Lewis, Goldman, & Taylor, 2000; Moorman, 1991; Niehoff & Moorman, 1993). In a parallel fashion, Naumann and Bennett (2000) found that group-level justice climate is also associated with individual-level helping behavior (see also Naumann & Bennett, 2002). Hence, we can see that fairness perceptions are associated with workplace helpfulness among individuals, and this is so regardless of whether justice is considered among individuals or collectively among teammates.

A second and somewhat more complex case occurs when one moves both the predictor and the criterion variable from the individual to the unit level of analysis. A good example of this possibility is provided by research on fairness and burnout. Cropanzano, Goldman, & Benson (2005) and Cropanzano and Wright (in press) reviewed evidence suggesting that individual-level (in)justice is associated with individual perceptions of burnout. Moliner et al. (2005) considered these variables at the level of the group. They found that team-level perceptions of justice climate predicted team-level feelings of burnout. Thus, both justice and burnout can be treated as collective constructs, and their relationship is similar to what would be expected at the individual level of analysis.

Morgeson and Hofmann (1999) argued that the structure and function should be fully examined before a unit-level construct can be considered to be scientifically legitimate. Consistent with the evidence already presented, as well as that reviewed later, unit-level justice seems to have met these two important criteria. In line with the structural approach, collective fairness seems to emerge from interactions among peers (Roberson, 2006a), and this process is especially strong when the team is cohesive (Naumann & Bennett, 2000) and team members work interdependently (Roberson, 2006b). In line with the functional approach, there is evidence that group-level fairness predicts many of the same criteria as does its individual-level counterpart. This includes such things as performance, OCB, and turnover (e.g., Liao & Rupp, 2005; Lin, Tang, Li, Wu, & Lin, 2007; Simons & Roberson, 2003). These arguments suggest that it is justifiable to evaluate justice at the unit level, though there are potential measurement issues that need to be addressed.

Measurement of Justice Climate

Once the conceptual legitimacy of a construct is established, the next step is to develop a measure to assess it. In this section, we shall focus on three issues related to the measurement of justice climate. First, we shall discuss the various ways to aggregate lower level responses to represent an upper level construct. Second, we shall discuss whether there is sufficient evidence to expect conceptual (as opposed to functional) isomorphism for justice perceptions across levels. Third, we shall discuss an issue that has plagued the justice literature in general and research on justice climate in particular—the lack of a widely accepted instrument.

Compositional Model of Aggregation

One important consideration is how to represent the upper level construct of justice climate based on the responses at the lower level (individual justice perceptions). In this regard, the five composition models proposed by Chan (1998) have been especially influential. These are additive, direct consensus, referent shift, dispersion, and process composition. According to Chan (1998), the process composition model does not have an empirical algorithm. As such, it has not been found relevant to unit-level justice research. We shall not consider it further, instead emphasizing the remaining four.

Additive model. According to the additive model, a collective construct is operationalized as the sum or average of lower level scores. This occurs regardless of the level of agreement among members within the unit. Chan argued that the additive model is appropriate only when the agreement among individual perceptions is not conceptually relevant. For example, community variables such as poverty and homeownership are simple aggregations of lower level variables (Bliese, Chan, & Ployhart, 2008). Although the additive model is a useful "jumping off" point for our discussion, it has not attracted wide attention with unit-level justice research. As we saw earlier, justice climate emerges out of the interaction among unit members, leading to similarity in peers' justice evaluations (Roberson, 2006a, 2006b).

Hence, if there is insufficient agreement, then there is no "climate" for justice, only a loose collection of individual opinions. For this reason, justice climate researchers generally go beyond the additive model, establishing within-unit agreement before doing further tests of their predictions (e.g., Ehrhart, 2004; Roberson & Colquitt, 2005). Given these considerations, justice scholars have emphasized other compositional models.

Direct-consensus model. According to the direct-consensus model, a certain level of agreement among individual-level perceptions is the prerequisite for aggregation. Typically, a within-unit agreement index is computed and is compared with a certain cutoff value. This is the typical strategy employed when investigating unit-level justice (e.g., Mayer et al., 2007). Failure to exceed the cutoff suggests that there is not enough agreement among unit members, which precludes the operationalization of a higher level construct. When a direct-consensus approach is used to assess justice climate, unit members are asked about their own justice perceptions. For example, one item in Liao and Rupp (2005; see the entire scale in the Appendix) is, "I can count on my supervisor to have fair policies." If there are sufficient agreements among unit members, then each member is assigned the average value of the unit for that particular justice climate dimension. The argument in favor of this approach is that if everyone perceives justice in more or less the same way, then unit-level justice perceptions are present in the unit. The direct-consensus approach has been widely used in the explorations of justice climate (e.g., Liao & Rupp, 2005), though it has also been criticized (Rupp et al., 2007a, 2007b).

Referent-shift model. Although generally similar to the direct-consensus model, justice climate researchers have sometimes posed referent shift as an alternative (Rupp et al., 2007a, 2007b). The referent-shift approach requires that there be sufficient within-unit agreement to justify the aggregation of lower level responses to the upper level. Individual responses are then averaged or summed. The critical difference is that the direct-consensus approach focuses on an individual's personal experience (i.e., the referent is typically "I"); the referent-shift approach focuses on a person's perceptions of the external environment. For example, when a referent-shift approach is used to assess justice climate, unit members are asked about their perceptions of how fairly *their unit as a whole* (rather than himself or herself) has been treated by the organization or a supervisor. Various justice climate researchers have employed referent shift (e.g, Naumann & Bennett, 2000, 2002; Yang, Mossholder, & Peng, 2007), and it remains a popular compositional model (Rupp et al., 2007a). For example, one item in Ehrhart (2004; see the full scale in the Appendix) states, "Have people in your department been able to express their views and feelings about those procedures?" As you can see, the referent was shifted to people in the department rather than to the survey respondent.

Recent years have seen increasing attention paid to the distinction between referent shift and direct consensus. Chan (1998) suggested that the referent-shift approach may result in a construct that is distinct from the construct created through the direct-consensus approach. In this regard, Rupp et al. (2007a, 2007b) have argued that referent shift better captures the sense of collective fairness than does direct consensus. In a direct test of this possibility, Bashshur, Rupp, Christopher, Ko, and Nam (2008) surveyed individuals at two large

organizations—383 employees of a large American university and 605 soldiers in the South Korean Army. In both samples, teammates showed greater agreement when justice climate was assessed via referent shift than when it was assessed via direct consensus.

Dispersion model. The direct-consensus and referent-shift models emphasize the level or amount of fairness perceived by a workgroup. The dispersion model, on the other hand, is concerned with the extent to which teammates agree or disagree. According to this model, the extent to which members share (or do not share) the same opinion is more than a statistical prerequisite for aggregation. Rather, dispersion is a construct in its own right, theoretically important and meaningful.

Unit-level justice researchers have made wide use of the dispersion model, generally referring to within-unit variability as the "strength" of the climate (e.g., Naumann & Bennett, 2000; Roberson, 2006a). Specifically, climate strength refers to the extent to which members within the same unit agree. An investigation of the variance of justice climate is warranted because contextual factors (either within the organization or within the unit) may create variations across different units on agreements on justice perceptions (see Colquitt, Noe, & Jackson, 2002; Roberson, 2006b). A more detailed discussion on the antecedents and outcomes of justice climate level and strength will be presented in the subsequent sections.

Conceptual Isomorphism

The term *conceptual isomorphism* refers to whether the same justice measure can be used across levels. *Conceptual* isomorphism should not be confused with *functional* isomorphism. As discussed earlier, functional isomorphism pertains to whether a group-level construct predicts the same variables as its individual-level counterpart. As we saw, the fact that helpful behaviors were predicted both by individual-level (Moorman, 1991) and unit-level (Naumann & Bennett, 2000) justice is an example of functional isomorphism. Conceptual isomorphism, on the other hand, pertains to whether a construct is operationalized differently at different levels of analysis. Multilevel researchers have frequently suggested that constructs at different levels may not be conceptually isomorphic or at least should not be assumed to be so (Chen & Bliese, 2002). To illustrate, Seibert, Silver, and Randolph (2004) argued that psychological empowerment (at the individual level) and empowerment climate (at the unit level) are two unique constructs that are conceptualized differently. For example, psychological empowerment focuses on an individual's psychological state, whereas empowerment climate focuses on the work environment. As such, psychological empowerment is more subjective, whereas empowerment climate is more descriptive. In addition, they also have different contents. Psychological empowerment reflects personal experiences in meaning, competence, self-determination, and impact, whereas empowerment climate reflects organizational practices in information sharing, boundaries, and team accountabilities.

Consequently, an important question is whether there is sufficient evidence to suggest that justice should be manifested similarly across levels. Unfortunately, this issue has never been fully addressed in cross-level justice research and should be subjected to additional inquiry. In most studies, it seems that the same measure has been used to assess justice across levels.

For example, Liao and Rupp (2005) used the same scale for both levels of analyses. However, this has not always been so. Mossholder et al. (1998) employed different scales for individual-level and unit-level fairness.

The issue of conceptual isomorphism affects another validity concern. Specifically, unit-level justice researchers have been interested in demonstrating that justice climate adds incremental predictive value beyond the better known, individual-level effects (e.g., Rupp et al., 2007a). When scholars show incremental validity but do so with different measures, an important ancillary question is raised. Could these effects be due to group-level considerations, as expected, or are they alternatively the result of using different instruments? For example, studies by Mossholder et al. (1998) found that group-level justice added explanatory value beyond individual-level fairness perceptions. However, this study used different scales for each level, raising the possibility that scaling may have confounded the findings. We will address the measurement issue in greater detail in our next section.

The Scales of (Unit-Level) Justice

In this section, we review several scales that have been used to assess justice climate. Because procedural fairness has been the most studied justice climate dimension, we shall give this variable special attention. One of the most commonly used procedural justice scales was developed by Colquitt (2001). The original instrument was developed for individual-level analyses, although it has been adopted for the unit level in several studies. We have presented it in our Appendix. Both Colquitt et al. (2002) and Spell and Arnold (2007) used a variant of the full scale. Ehrhart (2004), Mayer et al. (2007), and Simons and Roberson (2003) abbreviated the instrument somewhat, using selected items from the Colquitt measure. A key advantage of this scale is that it has been empirically validated and has been used extensively in research.

A second popular scale to assess procedural justice climate was taken from Moorman (1991). Like the Colquitt (2001) measure, the Moorman (1991) instrument was developed to assess justice at the individual level. Several researchers have used this scale to measure procedural justice climate. Yang et al. (2007) used the entire scale. Naumann and Bennett (2000, 2002) modified this measure by adding two more items. Chen, Lam, Naumann, and Schaubroeck (2005) used the modified Naumann and Bennett (2000) scale. Interestingly, Niehoff and Moorman (1993) later adjusted the Moorman (1991) scale. The Niehoff and Moorman instrument was used by both Tangirala and Ramanujam (2008) and Lin et al. (2007).

Beyond these measures, other researchers have used many different scales to assess procedural justice climate. Some other studies used existing scales. For example, Roberson (2006a, 2006b) used a measure developed by Kanfer, Sawyer, Earley, and Lind (1987). Other researchers developed their own instruments. This includes the measures employed by Moliner et al. (2005); Liao and Rupp (2005); Aquino, Tripp, and Bies (2006); Dietz, Robinson, Folger, Baron, and Schultz (2003); and Mossholder et al. (1998).

As the readers can see from our review, even within this relatively recent body of research, there exist many different scales that have been used to assess procedural justice climate. There is likely a variety of reasons, such as convenience or a need to limit survey length.

However, the use of measures that have not yet been validated may compromise the findings and create difficulties when integrating results across studies. It is our hope that more attention be given to the development of construct valid measures. In this regard, progress is being made. At least at the individual level of analysis, the Colquitt (2001) measure has solid validation evidence. Additional advances in scaling should occur as justice climate research matures.

General Evidence for Unit-Level Justice

In this section, we consider the background research on which fairness scholars have drawn when operationalizing justice at the unit level. During the early years of justice climate research, two theories of work attitudes were especially influential—social information processing theory (SIP; Salancik & Pfeffer, 1978) and the attraction-selection-attrition model (ASA; Schneider, 1987). Originally, neither of these conceptual models was formulated to explain justice perceptions per se, as both are general theoretical frameworks. However, both were drafted to explain why fairness judgments are likely to be influenced by the responses of others.

SIP

According to SIP (Salancik & Pfeffer, 1978), employees do not operate in an organizational vacuum. Instead, they engage in active interactions with each other to make sense of events that occur in their workplaces. This theory suggests that attitudes and behaviors are formed based on information collected from their social environment (for evidence, see Weiss & Nowicki, 1981). For example, Glomb and Liao (2003) found that employees were more likely to engage in aggressive behavior themselves when other members of their work group engaged in aggression. These results suggested that consistent with SIP, individuals use the norms and behaviors of the work group to guide their own actions.

As one might imagine, social information is also critical for constructing and interpreting reality. In two articles, Roberson (2006a, 2006b) has applied SIP directly to fairness perceptions. She has argued that when exposed to justice or injustice, unit members may turn to each other to discuss their experience and exchange their interpretations of the events. This process yields a collective evaluation of fairness within a given work unit (for a similar application of the SIP model, see Naumann & Bennett, 2000).

ASA

Research on SIP suggests that individuals change their views on justice depending on what others experience. Our second theory poses a somewhat different, though by no means contradictory, mechanism. According to Schneider's (1987) ASA model, three sets of processes make people within organizations more homogenous. First, people are attracted to organizations or groups with whom they share similar characteristics or attitudes. Second,

organizations and job applications select each other on the basis of the similarity, and third, people may even leave when they do not "fit in" with their coworkers. These processes tend to work against diversity and make coworkers more similar over time. Consequently, members of the same unit may become increasingly homogeneous in terms of values, attitudes, and personality (Schneider, Goldstein, & Smith, 1995). Research to date has been generally supportive of Schneider's formulation. For example, research by Giberson, Resick, and Dickson (2005) and Schneider, Smith, Taylor, and Fleenor (1998) has documented a good deal of personality similarity among people working for the same organization. Naumann and Bennett (2000) have applied this thinking to justice climate. As coworkers are likely to have similar personalities and values, it should not be surprising to find that they show some consensus on their interpretation of justice-related events.

These two phenomena—SIP and ASA—tend to push teammates into a common direction of greater homogeneity in their fairness judgments. Specifically, "individual" justice evaluations may be (a) learned from others (Roberson, 2006a, 2006b) and (b) result from reduced variability in the personalities of people who remain in a work group (Naumann & Bennett, 2000). With these larger theoretical issues in mind, we now need to focus more specifically on relevant justice research.

Unit-Level Justice: Evidence From Fairness Research

The evidence we have reviewed has been based on two general models of work attitudes, SIP and ASA, rather than on research that is specific to organizational justice. With this work providing a foundation, a number of investigators have suggested that forming a justice evaluation is the product of a socially construed process (e.g., Colquitt, 2004; D. A. Jones & Skarlicki, 2005). We concede that the evidence is somewhat scattered, though it is consistent in indicating that justice is a social process rather than an exclusively individualistic one.

Third-party perceptions of fairness. According to Folger and Salvador's (in press) theory of *deontic justice*, fairness is often valued for its own sake. That is, people generally would like to see standards of justice upheld. As a result, research suggests that bystanders will sometimes attempt to remedy unfairness even when they do not know (and have no prospects of meeting) the actual victim (Turillo, Folger, Lavelle, Umpress, & Gee, 2002). The evidence for deontic justice is now fairly extensive. It has been found that employees who act as third parties will sometimes (but not always, see Skarlicki, Ellard, & Kelln, 1998) respond negatively to injustice experienced by coworkers (for detailed examinations, see Ellard & Skarlicki, 2002; Skarlicki & Kulik, 2005). Not only is it unpleasant to observe the mistreatment of others (Sutton, 2007), but neutral onlookers will go so far as to attempt to rectify the injustice by punishing harm doers (Lerner, 2003), and this occurs even if it is personally costly to do so (Kahneman, Knetsch, & Thaler, 1986; Rupp & Bell, in press).

The notion that one's justice perceptions are shaped by the treatment that others receive has important practical implications. In this regard, research on survivors' reactions to layoffs is especially informative. Survivors' responses toward their employer are affected by how fairly their erstwhile coworkers, the layoff victims, were treated during the downsizing.

Specifically, organizations that do not provide a reasonable explanation for the layoff or compensate layoff victims adequately are considered unfair by the survivors. As one might expect from the deontic model of justice, survivors may respond negatively even when they are not personally affected by the downsizing (Brockner, 1990; Brockner, DeWitt, Grover, & Reed, 1990; Brockner, Grover, Reed, DeWitt, & O'Malley, 1987).

These findings suggest that one's own sense of fairness is partially contingent on the treatment that others experience (Cropanzano, Goldman, & Folger, 2003, 2005; Cropanzano, Stein, & Goldman, 2007), though these third-party effects are apt to be larger when the victim is a member of one's own in-group (cf. Clayton & Opotow, 2003; Hafer & Olson, 2003). Consequently, the sense that a teammate is being treated unfairly (or fairly) is apt to evoke a parallel response from an employee. In this way, members of a work unit could come to share similar views regarding fairness.

Justice contagion. Conceptually similar to SIP is Degoey's (2000) notion of *contagious justice*. According to Degoey, thoughts and feelings about justice-related events may be communicated among members of the same unit in much the same way as infectious diseases spread from one person to the next. Degoey distinguished two kinds of justice contagion: cognitive and emotional contagion. Cognitive contagion refers to the process of communicating and exchanging justice-relevant information, through which similar perceptions are developed within the same unit. Emotional contagion refers to the process whereby one person's emotional response to justice is influenced by the affective reactions of other people within the same unit (and vice versa). As Degoey noted, "People want to learn how others have emotionally reacted to a stressful event in order to validate their own emotions and help them comprehend the meaning of the event" (p. 64). The exchange process may allow them to reach a consensus on how justice-related events should be interpreted.

A process such as contagious justice would tend to promote a group-level sense of what is fair or unfair. Although direct evidence for Degoey's (2000) model remains limited, the framework does appear to be consistent with what we know about fairness. For example, Ambrose, Harland, and Kulik (1991) found that experimental participants reported a lower level of satisfaction when they received negative outcomes *and* when both themselves and similar others were treated with procedural unfairness (relative to when either themselves or similar others received positive outcomes). Apparently, the dissatisfaction was triggered by the consensus on procedural and outcome unfairness.

The fairness heuristic model. Explorations of fairness heuristic theory (FHT) are rich and complex, so a complete review is beyond the scope of the present article (see, instead, Lind, 1992, 2001; van den Bos, Lind, & Wilke, 2001). However, FHT provides some key ideas that are important here. According to FHT, when individuals defer to an authority, they make themselves vulnerable to possible exploitations. Lind (1995, 2001) views this as a *fundamental social dilemma*. Accepting leadership from others carries inherent risks. As a consequence, subordinates seek evidence regarding authority figures' trustworthiness. Fairness is an important clue that provides this information. The problem, of course, is that our social lives can call for many such judgments, while not providing the necessary information on which to make them. As a result, we turn to cognitive shortcuts, called heuristics, to guide

our fairness evaluations. The use of these fairness heuristics can be quite efficient, but it can cause us to make irrational judgments, such as weighting earlier information more heavily than subsequent information (van den Bos, Vermunt, & Wilke, 1997).

More to the point at hand, FHT has treated the social context as a heuristic influence on fairness perceptions. If this is so, then the use of shared heuristics should create consensus within a work team. That is, if a group of workers is exposed to the same stimuli and use the same heuristic, then they should tend to agree as to how their group has been treated. Evidence to date has been supportive. For example, Lind, Kray, and Thompson (1998) found that justice perceptions were partially influenced by the treatment that others received. However, we should note that Lind et al. also observed that these social influences were far smaller than were the effects of personal experiences. Even more promising findings were obtained in two experimental studies by van den Bos and Lind (2001: 1333). These authors found that participants used the treatment others received as the basis to judge the fairness of the procedure. These findings prompted the authors to claim that "we found other-oriented justice effects that appear to be every bit as strong as were our self-oriented justice effects." In a later study, Kray and Lind (2002) also argued that people use information from the treatment of others to form their own justice perceptions. In the experiment, the authors found that participants reported a lower level of justice and poorer evaluations of their supervisor in response to fairness violations targeting coworkers.

Conclusions. We have reviewed a series of distinct subliteratures, each of which has explored the formation of justice perceptions—third-party fairness, contagious justice, and FHT. All of these works, when taken collectively, point to the role of social influence on justice perceptions. Likewise, each of these phenomena is apt to reduce the variability among teammates in terms of their fairness evaluations. The evidence we have discussed thus far, then, should lead one to expect that group members will share some similarity in their justice perceptions. What remains, of course, is to build on this insight and consider fairness as a unit-level construct. We shall do that in our next section.

Justice Climate

Naumann and Bennett (2000) first coined the term *justice climate.* They defined it as "group-level cognition about how a work group as a whole is treated" (p. 882). This understanding of justice climate has been quite influential, being employed by such authors as Ehrhart (2004), Roberson and Colquitt (2005), and Rupp et al. (2007a, 2007b).

Notice that Naumann and Bennett's (2000) definition refers to how the group, as a unit, perceives that it has been affected by some outsider agent. Li and his colleagues argue that there are alternative conceptualizations of group-level justice, and we shall visit one later in this article.

Unit-level justice, as opposed to its more individualistic predecessor, is a relatively new construct. Like all scholarly constructs, understanding of justice climate depends on its relationship to other important work-relevant variables (cf. Cronbach & Meehl, 1955; Messick, 1981; Schwab, 1980). Toward this end, we will review available research that attempts to position

justice climate with respect to its causes (antecedents), consequences, and moderator variables. Our approach is displayed in Figure 1, which references empirical articles that are especially germane to our discussion. The reader will observe that some studies fit into more than one category. For example, Ehrhart (2004) presented a comprehensive theory arguing that servant leadership improves justice climate. This increased fairness, in turn, boosted helping behavior in the team. As Ehrhart treated justice climate as a mediating variable between servant leadership and work behavior, his study investigated both antecedents and consequences.

Antecedents: Causes of Workplace Justice Climate

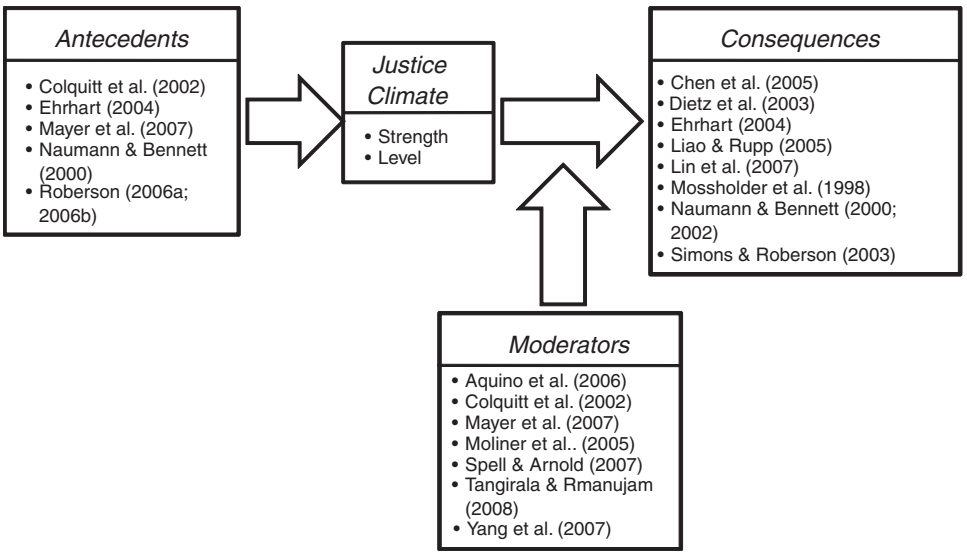
In this section, we will discuss studies that treat justice climate as a criterion variable or as the outcome of some other phenomenon. Scholars have operationalized justice climate in two ways, and they partially map onto Chan's (1998) five influential compositional models. The first operationalization of justice climate is based on Chan's dispersion model. It pertains to the variability of fairness perceptions within a team. It is typically referred to as justice climate *strength* (e.g., Colquitt et al., 2002; Roberson, 2006a, 2006b). The second operationalization pertains to the *level* of justice climate, which is the extent to which teammates believe that they are fairly or unfairly treated. Justice climate level has been assessed through both direct consensus and referent shift (Liao & Rupp, 2005; Rupp et al., 2007a, 2007b). To our knowledge, there are no explorations of group-level fairness that employ Chan's additive or process composition models.

Justice climate strength. Naumann and Bennett (2000) limited their initial investigation to procedural justice climate, which refers to group-level perceptions of process fairness. They investigated climate strength with a sample of 220 employees from two banks in 40 different locations. Naumann and Bennett found that group cohesion and visibility of supervisors in handling justice were predictive of the variance of procedural justice climate. More specifically, when cohesion was high, individuals agreed more as to procedural fairness. It was also the case that the leader helped to set the tone of the climate. When he or she was visible, variability was lower.

Building on these ideas, Roberson (2006a) argued that injustice triggers sense-making activities among group members. These activities, in turn, cause group discussion. This social interaction ultimately reduces the variability (i.e., increases the consistency) of teammates' justice perceptions. These propositions were tested with 124 undergraduate student project teams. The author found that team members were most likely to engage in sense-making activities when they experienced fair procedures and unfair outcomes. In addition, more sense-making discussion led to a higher level of agreement on distributive and procedural justice climate.

Roberson (2006b) examined the effects of task interdependence on the strength of justice climate. Specifically, when unit members work interdependently, they are more likely to be exposed to the same fairness treatments, discuss their interpretation of justice-related events, and develop shared meanings of their experience. Consequently, interdependence influences the perceptual similarity among unit members. Results of an experiment showed that teams that were more interdependent reported a higher level of

Figure 1
Nomological Network for Justice Climate



procedural and distributive justice climate strength than teams low on interdependence. In addition, they found that interdependence increased unit members' identification with the team, which in turn also increased the strength of procedural justice climate. In other words, identification mediated the relationship between interdependence and procedural justice climate strength.

Justice climate level. Mayer et al. (2007) examined leader personality as a potential antecedent of work-group procedural, interpersonal, and informational justice climate. They posited that leader agreeableness should be important for interpersonal and informational justice because agreeable supervisors tend to treat their subordinates with respect. They are also more likely to provide explanations to their employees to justify their decisions and to be truthful in the communications. Consistent with this line of reasoning, they found that leader agreeableness was positively related to interpersonal and informational justice climate. Unexpectedly, they also found that leader agreeableness was positively related to procedural justice climate.

In addition, these authors discovered that leader neuroticism was negatively related to procedural, informational, and interpersonal justice climate. This finding was consistent with the authors' arguments. Specifically, when a leader is emotionally unstable, he or she is less likely to be procedurally just (to treat group members in a consistent manner and to allow them the opportunity to express their opinions), because he or she tends to be too preoccupied with personal emotional states. Similarly, neurotic leaders are less likely to be sensitive

to the needs of group members and to provide sufficient rationales to justify their decisions. Finally, the authors also found that leader conscientiousness was positively related to procedural justice climate. The reasoning for this finding is that when leaders are conscientious, they are more likely to maintain consistency in their interaction with followers and use accurate information for decision making.

Distinguishing climate strength from climate level. Naumann and Bennett (2000) and Roberson (2006a, 2006b) emphasized factors influencing the variance of justice climate. Mayer et al. (2007) studied factors that affect climate level. However, before moving on, it is worth asking whether Chan's (1998) computational models truly apply to group-level justice. That is, are there practical differences between strength (the degree of agreement) and level (the extent to which a group views itself as having been treated fairly or unfairly)? Colquitt et al. (2002) tested this possibility directly, arguing that strength and level have different antecedents. Using 88 teams of auto-parts employees (n = 1,747), Colquitt et al. found that team size was negatively related to and collectivism was positively related to the level of procedural justice climate. Both team size and demographic diversity were negatively related to the variance of procedural justice climate. As Chan anticipated, it seems that climate strength (or dispersion) and climate level are distinct constructs.

Building on this observation, Colquitt et al. (2002) went further, arguing that if strength and level were distinct they might also interact to influence outcome variables. Specifically, when individuals agreed as to how their group is being treated (high strength), then the impact of climate level should be all the stronger. Colquitt et al. found support for this contention. When strength was high and procedural justice climate was unfair, then team absenteeism was high and team performance was low.

Moliner et al. (2005) examined the relationships between justice climate and unit-level burnout. Like Colquitt et al. (2002), Moliner et al. separately examined the effects of justice climate level and strength. Based on 324 employees working in 108 work units, these authors found that justice climate level was related to the level of burnout experienced at the unit level. In addition, they replicated Colquitt et al. (2002) by finding an interactive effect of justice climate level and strength on burnout. It is worth noting that Moliner et al. found these effects primarily in interactional justice climate, whereas no such effects were found in procedural or distributive justice climate.

Workplace Outcomes Predicted by Justice Climate

Beyond the antecedents of justice climate, researchers have also examined the effects of justice climate on outcome variables. In this section, we begin with research examining individual-level outcomes. We then turn our attention to group-level criteria.

Justice climate and individual-level outcomes. In a seminal study, Mossholder et al. (1998) examined justice climate among employees from a savings and loan corporation that had offices located in different areas of the country. As expected, there was a good deal of within-unit homogeneity and between-unit heterogeneity among the branches. If one uses a direct-consensus or a referent-shift compositional model, this is a prerequisite

to operationalize a unit-level variable (cf. Bryk & Raudenbush, 1992; James, Demaree, & Wolf, 1984). More to our present point, this study found that procedural justice climate accounted for variance in job satisfaction above and beyond the variance explained by justice perceptions experienced at the individual level.

Generally similar results were obtained in the Naumann and Bennett (2000) article discussed earlier. Naumann and Bennett (2000) found that procedural justice climate was related to helping behavior in the team. Moreover, procedural justice climate accounted for additional variance in helping behavior above and beyond the variance explained by individual-level fairness perceptions. Naumann and Bennett (2002) took this reasoning a step further. In a separate study that used the same data set, they found that procedural justice climate not only boosted helping behavior, but that helping behavior—when it was present—subsequently increased group performance. Thus, it seems likely that justice climate is related to performance, though this relationship may be mediated by mutual helpfulness.

In a similar study, Lin et al. (2007) also examined the relationship between procedural justice climate and helping behavior in work groups. Lin et al. argued that in the presence of a high procedural justice climate, employees are more likely to establish social exchange relationships. As such, they may reciprocate the fair treatment they receive by helping others. Using 45 work groups, Lin et al. found support for the link between procedural justice climate and helping behavior. They also found that the relationship was mediated by cooperative norms.

Individual outcomes and multifoci justice climate. Most of the research to date has tended to emphasize *procedural* justice climate, with less attention paid to distributive and interactional fairness. Also, relatively little work has examined the sources of justice perceptions. A fair climate could be brought about by one's organization as a whole, one's immediate supervisor, or other agents. Research on multifoci justice suggests that individuals distinguish justice perceptions coming from different entities and develop reactions toward the sources accordingly (see Cropanzano & Mitchell, 2005; Cropanzano & Rupp, in press; Lavelle, Rupp, & Brockner, 2007). For example, if one's supervisor is fair, then one is apt to engage in OCB that benefits him or her, whereas if one's organization is fair then OCB is used to benefit the firm as a whole (Cropanzano, Prehar, & Chen, 2002; Masterson et al., 2000; Rupp & Cropanzano, 2002).

Historically, multifoci research has been conducted at the individual level, though it seems to be a natural candidate for treatment at the unit level as well. This possibility was articulated and investigated by Liao and Rupp (2005). They considered two entities, the supervisor and the organization. Based on a survey of 231 members from 44 teams, Liao and Rupp (2005) discovered that organization-focused procedural and informational justice climate, as well as supervisor-focused procedural and interpersonal justice climate, were significantly related to important outcome variables. These included group performance and OCB. These relationships remained significant even when the effects of individual-level justice perceptions were controlled.

In a fascinating extension of this multifoci research, Bashshur et al. (2008) examined alignment between the organizational foci and the supervisory foci. These scholars found a significant interaction between the two. As anticipated, workers performed the most citizenship

behaviors, showed the fewest counterproductive work behaviors, and had the most favorable work attitudes when the climate from the organization and the climate from the supervisor were both fair. Although this alone would be a meaningful extension, their analyses showed something further. Although not predicted in advance, Bashshur et al. also found evidence that the least favorable employee responses came when the supervisor was unfair but the organization was fair. This mismatch may have been especially troubling to research participants.

Justice climate and group-level outcomes. Thus far, the research we have reviewed has focused on the effects of justice climate on individual-level outcomes. However, justice climate may also affect group-level criteria. In this regard, Simons and Roberson (2003) extended previous research by examining the effects of aggregated justice perceptions on organizational-level outcomes, including business-unit-level employee turnover and customer satisfaction ratings. Simons and Roberson focused on two aggregated levels of justice perceptions: departmental and business-unit (hotel, in this particular study) levels. Using 4,539 employees from 783 departments nested within 97 business units, Simons and Roberson found that the aggregated level of justice perceptions was related to unit-level outcomes.

Dietz et al. (2003) also examined the effects of procedural justice climate on aggregated outcomes. They focused on the effects of injustice on plant-level workplace aggression. These authors argued that procedural justice climate may lead to workplace violence for two reasons. First, a low level of procedural justice climate may create an aversive work environment, which may lead to anger and violence. Second, a low level of procedural justice climate may also create the norm of disrespect, which may trigger uncivil behavior. However, contrary to their hypothesis, procedural justice climate was not related to aggression. As we mentioned earlier, the use of a problematic measure could have been the cause of the nonfindings in this study.

More favorable findings were provided by Chen et al. (2005), who examined procedural justice climate as a potential antecedent of group citizenship behavior. Group citizenship behavior refers to discretionary behavior demonstrated by one group to support another group or the organization in general. Consistent with their expectations, procedural justice climate was positively related to group citizenship behavior.

Justice climate as a mediator. Thus far, we have seen that justice climate can be treated as either a consequence or a cause. If this is so, then we would anticipate that fairness climate can mediate between certain antecedents and outcomes. Following from this reasoning, Ehrhart (2004) examined procedural justice climate as a mediator of the relationship between servant leadership and OCB. In the ideal, servant leadership is altruistic. It is "person-centered" and seeks to develop individuals and institutions (Autry, 2004; Greenleaf, 2003, 2005). Hence, servant leaders are committed to developing and improving the abilities of their followers.

Drawing on this tradition, Ehrhart (2004) argued that employees' fairness perceptions are derived from leadership behavior. Therefore, leaders who serve their followers and make their interests the top priority may promote the formation of a strong justice climate. In addition, followers who are treated fairly may reciprocate by forming social exchange relationships with the leader and exhibit OCB to help the organization. Results of their study

provided support to the hypothesized model. Ehrhart's study tells us that high-quality leadership, of the sort that is attentive to the needs of subordinates, can improve justice climate.

Ehrhart's (2004) integration of servant leadership and justice climate represents an important contribution. Expanding on Ehrhart's ideas could provide an important area for future inquiry, one with the potential to increase our scholarly understanding of work behavior while also making organizations more humane and developmental. Although all would agree that servant leaders are fair, Greenleaf (2003) argues that they have 10 important attributes. Servant leaders are good listeners, empathic, healers, aware of the needs of others, persuasive, visionary conceptualizers, able to anticipate consequences (foresight), good stewards, committed to the growth and development of others, and interested in building a community. Some of these attributes seem to be directly related to justice climate (e.g., community building), but others may have direct effects on employees. For instance, a servant leader may be helpful at building the character and competency of the workforce. Hence, those who work for servant leaders may be more effective because they have greater integrity and more skills (Autry, 2004). We might eventually learn that justice, as important as it is, is only one contribution that servant leaders make to others.

Moderating the Effect of Justice Climate

We now turn our attention to a series of studies that have examined potential interactions involving justice climate. This is a particularly interesting line of inquiry, though a tad confusing as it is not guided by a single conceptual framework. As a consequence, different sets of authors have studied different moderators, and relatively little work has built on prior investigations.

Interaction of group-level and individual-level fairness. Mayer et al. (2007) found that individual perceptions of each type of fairness exerted the greatest impact on criterion variables when the corresponding sort of justice climate was also high. That is, individual perceptions of interpersonal justice were most influential when interpersonal justice climate was high, whereas individual perceptions of informational justice were most influential when informational justice climate was high. Although Mayer et al. found strong support for the predictions involving interpersonal and informational justice, they failed to find these effects on procedural justice.

Interaction among different types of justice climate. Given that there are multiple types of justice climate, such as distributive and procedural (cf. Colquitt et al., 2002), it seems reasonable to ask whether these will interact. Spell and Arnold (2007) did just this, examining whether the interactions of different types of justice climates explained variance in employee well-being above and beyond the direct effects of justice perceptions at the individual level. Using a sample of 483 employees nested within 57 teams, Spell and Arnold (2007) found that distributive and procedural justice climate interacted to influence employee anxiety and depression, even when the main effects of individual-level justice perceptions were

controlled. In other words, workers had the poorest mental health when both their distributive and their procedural justice climates were unfair.

Interaction of group power distance and justice climate. Yang et al. (2007) examined the moderating role of group power distance on the relationship between procedural justice climate and individual-level outcome variables, including organizational commitment and organizational citizenship behavior directed at the organization (OCBO). Group power distance refers to the shared perceptions about the power and privilege held by an authority figure. In groups that are high on power-distance members believe that an authority is entitled to more respect. As such, they are more likely to defer to the authority and comply with organizational policies and procedures. In contrast, in groups that are low on power-distance members believe that power should be distributed equally and that everyone should have equal rights. Therefore, they are more likely to engage in discussions of policies and procedures.

These arguments suggest that the effects of procedural justice climate on outcome variables may be attenuated in groups characterized by a high level of power distance, as these groups are less likely to perceive the benefits associated with a fair procedural climate. Results of their study showed that consistent with past research, procedural justice climate explained variance on outcome variables above and beyond variance explained by justice experienced at the individual level. Moreover, they found the predicted interactive effects. Specifically, the effects of procedural justice climate on outcome variables were weaker when the group power distance was high.

Justice climate and revenge seeking. Aquino et al. (2006) explored procedural justice climate to better understand the conditions that would impel people to seek retribution. Specifically, these scholars examined procedural justice climate, status in the organization, and types of offense as factors underlying these decisions. As expected, these authors found that procedural justice climate was positively related to reconciliation. More interesting were the interactions between absolute hierarchical status and justice climate. Hierarchical status refers to how highly the victim of injustice is positioned in an organization. Aquino et al. found that the relationship between hierarchical status and forgiveness was moderated by procedural justice climate, such that hierarchical status was more positively related to forgiveness only when procedural justice climate was high. In addition, they found that the relationship between hierarchical status and reconciliation was moderated by procedural justice climate, such that hierarchical status was more positively related to reconciliation only when procedural justice climate was high.

These authors also found that the type of offense interacted with procedural justice climate to predict retaliation. Aquino et al. (2006) studied two types of offense—goal obstructions, whereby the target employee was blocked from a desirable outcome, and justice violations, whereby the target employee experienced unfair or immoral treatments from another party. When procedural justice climate was high, the tendency to seek retribution was low across both types of violations. This should come as no surprise, as it simply underscores the importance of fairness. The more interesting case occurs when procedural justice climate was low. When individuals experienced a justice violation, and the climate was

unfair, research participants were more likely to seek revenge against those that had harmed them. Similarly, when the climate was unfair and individuals experienced a justice violation from a coworker, victims became more likely to simply avoid the offender.

Justice climate and employee silence. Employee silence refers to the intentional withholding of work-related information to others in the group. Employee silence can be costly to organizations that may lose the valuable opportunities to correct errors and address problems. Tangirala and Ramanujam (2008) examined factors that influence employees' decisions to remain silent. They argued and found that work-group identification, professional commitment, and individual procedural justice perceptions were negatively related to employee silence, whereas supervisory status was positively related to it. In addition, they found that procedural justice climate moderated the relationship between two of the factors (work-group identification and professional commitment) and silence. These relationships became stronger when procedural justice climate was high. They reasoned that a high level of procedural justice climate created a favorable group environment for communication. As such, the tendency to speak up as a result of a high level of work-group identification and professional commitment may be further enhanced.

Closing Thoughts

As Chan (1998) anticipated, justice climate can be studied for either its strength (dispersion) or its level (direct consensus and referent shift). The antecedents of strength and level can be distinguished (Colquitt et al., 2002). Moreover, climate level and climate dispersion seem to interact (Moliner et al., 2005). Colquitt et al. (2002) found that absenteeism was highest and performance was lowest when team members agreed (low variability) that they were not working in a fair climate (low level). Individuals within a work team tend to show reduced variability in justice perceptions when their group is cohesive, when justice-relevant behavior from their supervisor is visible, and when they interact to make sense of an event, among other things (e.g., Naumann & Bennett, 2000; Roberson, 2006a). Team members tend to report a fairer climate when their group is small, when they are collectivistic, when members work interdependently, and when their leader is agreeable (Colquitt et al., 2002; Ehrhart, 2004; Mayer et al., 2007; Roberson, 2006b).

The level of justice climate has been found to be an important predictor of individual criteria, such as helping behaviors (Liao & Rupp, 2005; Naumann & Bennett, 2000, 2002b). The climate level also predicts collective criteria, such as unit-level turnover, customer satisfaction, unit-level burnout, and group-level helpfulness, and group performance (Chen et al., 2005; Liao & Rupp; 2005; Lin et al., 2007; Moliner et al., 2005; Simons & Roberson, 2003). It is less clear whether justice climate variability predicts these outcomes.

These findings have provided scholars with a solid foundation for understanding justice climate, but there are still two unanswered questions. The first is among the different types of fairness; the second is among different foci or sources.

Types of fairness. As we saw in the opening of this article, there are at least three types of justice—distributive, procedural, and interactional. Interactional justice can be further subdivided into informational and interpersonal. This understanding of fairness provides a rich opportunity for justice climate research. For all that, most of the studies investigating the construct of justice climate have focused exclusively on procedural justice. In contrast, researchers have paid less attention to the other dimensions of justice climate, such as distributive and interactional. As Spell and Arnold (2007) point out, "shared information would logically flow in relation to all prominent forms of justice, thereby creating the potential for climate to develop across procedural, interactional, and distributive forms of justice" (p. 725). Some evidence exists, though it is limited. For example, Liao and Rupp (2005) found that the climate for both procedural justice and informational justice predicted group performance and OCB. Likewise, Spell and Arnold (2007) found that the interaction of procedural justice climate with distributive justice climate was a predictor of employee mental health. This evidence suggests that research would benefit from examining multiple types of justice climate (see also Mayer et al., 2007; Moliner et al., 2005).

Multifoci justice climate. In addition to a consideration of justice type, it would be worthwhile to examine the sources or foci of justice perceptions. At the individual level of analysis, evidence suggests that employees distinguish (at least) between their immediate supervisor and the organization as a whole. Either of these entities can be fair or unfair (Cropanzano & Mitchell, 2005; Cropanzano & Rupp, in press). Despite this, only Liao and Rupp (2005) have investigated multifoci justice at the group level. As we saw, these researchers obtained intriguing results (for additional analysis, see Rupp et al., 2007a, 2007b). We hope that future researchers follow the lead set by Liao and Rupp (2005).

Intraunit Justice Climate

Thus far, we have only considered the case of justice climate, defined as the collective perception that one's work team is being treated fairly by others (for a discussion of this definition, see Ambrose & Schminke, 2007; Rupp et al., 2007a, 2007b). As we saw in the prior section, this approach to justice climate has proven quite useful to scholars. However, it does not rule out alternative definitions. In this regard, Li et al. (2007) argued that it is also worthwhile to study the typical way in which people who are part of a group treat one another. Li et al. refer to this as intraunit justice climate, and this construct will be explored in the present section (see also, Cropanzano, Li, & James, 2007).

Social Psychological Background

The concept of intraunit justice is derived from the social psychological literature that focuses on teamwork (Branscombe, Spears, Ellemers, & Doosje, 2002; Ellemers, Doosje, & Spears, 2004; Simon & Sturmer, 2003, 2005). A common theme in this work is that respectful

treatment from teammates promotes behavior that serves the needs of coworkers. Branscombe et al. (2002) examined whether group status and respectful treatment by in-group members interact to influence one's motivation to perform group-serving activities. For example, Brandscombe et al. argued that members are more likely to identify with their in-group when it is being discriminated against by a prestigious out-group. This tendency is increased, they maintained, when individuals are treated with respect by their in-group. That is because respect by other members of the in-group conveys messages of inclusion and high social status. As such, members are willing to exert effort for the benefit of the team. However, when devalued group members are not treated with respect by their in-group, they are unlikely to exhibit group-serving behavior. In a lab experiment, Brandscombe et al. found support for these predictions.

Likewise, Simon and Sturmer (2003) examined the mediating role of collective identification on the relationship between intragroup respect and group-serving behavior. In their lab study, Simon and Sturmer found that when one was treated with respect by fellow group members, they were likely to develop collective identification with the group. This identification, in turn, motivated well-treated participants to exhibit behavior that served the interest of the team. In a similar fashion, De Cremer (2002) found that respectful treatment from peers increased the perceptions of inclusiveness and team members' contribution to the team. Although these studies do not comprise a full-blown test of intraunit justice, the concept is certainly suggested.

Tests of Intraunit Justice

Building on these social psychological studies, Li and his colleagues (Cropanzano, Li, & James, 2007; Li et al., 2007; Li & Cropanzano, 2008) articulated the construct of intraunit justice climate, defined as the shared perceptions of the extent to which unit members treat each other fairly. Intraunit justice climate was said to include at least three dimensions: distributive, procedural, and interactional justice. Distributive intraunit justice climate refers to the extent to which teammates receive what they deserve based on their contribution. Procedural intraunit justice climate refers to perceived fairness of the procedures and decision-making process within the team. Interactional intraunit justice climate refers to the perceived quality of interpersonal treatment from teammates. To date, there have been only two tests of intraunit justice, though both have been supportive.

The structure and validity of intraunit justice climate. In a longitudinal study, Li et al. (2007) studied 47 teams of undergraduate students ($n = 171$). These research participants were enrolled in the business school of a large state university. Participants were surveyed twice. In the first survey, participants completed measures of intraunit justice climate, justice climate, and collective efficacy. In the second survey, which was given 4 weeks later, participants completed measures of satisfaction with teammates and relationship conflict. In addition, the grades of the team project were used as an indicator of team performance.

The measure of intraunit justice appears in the Appendix. Distributive intraunit justice climate was measured with a five-item scale based on George (1992) because her measure reflects the extent to which team members contribute equitably to the team effort. Procedural intraunit justice climate was measured with a five-item scale reflecting members' evaluations of the procedures used within the teams. These items were written based on the criteria proposed by Leventhal (1976) and are similar to Colquitt's (2001) items. Interactional intraunit justice climate was measured with a four-item scale developed by Donovan, Drasgow, and Munson (1998).

In the first step of their analyses, Li and his colleagues examined whether the intraunit justice climate measures fell into the three-factor structure predicted by previous research on organizational justice. Results of the analyses indicated that when compared with a hypothetical one-factor model, the three-factor model fit the data better. In addition, these authors also examined whether participants were able to distinguish justice perceptions coming from teammates (justice climate) from justice perceptions coming from an authority figure (justice climate). Results of their study showed that a six-factor model that distinguished both the source and the type of justice perceptions was the best-fitting model relative to other models.

In the second step of their analyses, they examined whether there was enough within-team agreement to aggregate individual responses to the team level. These authors used the within-group interrater agreement index ($r_{wg(j)}$), the intraclass coefficient ICC(1), and the group mean reliability ICC(2) to assess within-team agreement and across-team disagreement. Results of the analyses suggested that intraunit justice climate produced satisfactory values for all these indexes, which met the criteria for aggregation.

In the third step of their analyses, these authors examined the relationship between intraunit justice climate and important outcome variables. They also examined whether intraunit justice climate explained additional variance on outcome variables beyond the variance accounted for by justice climate. Results of the study indicated that intraunit justice climate was significantly related to satisfaction with one's teammates and relationship conflict. In addition, we found that these variables were somewhat more strongly related to intraunit justice climate than to justice climate. Finally, they also found that collective efficacy mediated the relationship between intraunit justice climate and performance.

This study was important for a number of reasons. First, these authors developed a measure of intraunit justice climate. They also found that there was within-group homogeneity and meaningful variations across groups, two prerequisites to operationalize a unit-level construct. Second, they also found that intraunit justice climate was distinct from justice climate, which suggested that individuals were able to distinguish the different sources of justice perceptions. Third, they found that intraunit justice climate was more strongly related to some variables than did justice climate. This attests to the incremental value of considering intraunit justice.

Intraunit justice and teamwork quality. Li and Cropanzano (2008) furthered this line of research by evaluating a model linking intraunit justice climate to outcome variables (unit-level citizenship behavior and satisfaction with teammates) through the mediating role of teamwork quality. Specifically, Li and Cropanzano asserted that intraunit fairness boosts

the quality of interaction among team members. This enhanced quality, in turn, engenders favorable attitudes and OCB.

According to Hoegl and Gemuenden (2001), teamwork quality is a superordinate construct referring to the level and quality of interaction among team members. Teamwork quality includes six dimensions: communication (the extent to which team members engage in frequent, open, and informal exchange of information), coordination (the extent to which team members synchronize and make mutual adjustment of their activities), balance of member contribution (the extent to which members are delegated tasks that they have the capability to perform), mutual support (the extent to which team members handle conflict competitively or cooperatively, assist each other when help is needed, and develop and respect others' ideas), effort (the extent to which members are willing to exert effort on behalf of the team), and cohesion (the extent to which members feel a strong attachment to each other and a desire to remain as part of the team). Li and Cropanzano (2008) argued that a high level of intraunit justice climate, characterized by team members receiving what they deserve based on their contribution, using fair procedures and policies to make decisions, and treating each other with dignity and respect, may promote positive interactions among team members. As a result, team members may be more likely to be satisfied with their teammates and demonstrate unit-level citizenship behavior. In other words, they hypothesized that teamwork quality may mediate the relationships between intraunit justice climate and outcome variables.

Li and Cropanzano (2008) examined these hypotheses in a longitudinal study. A total of 164 undergraduate student project teams ($n = 570$) participated. Subjects responded to three surveys that were separated from one another by 4 weeks. In the first survey, participants completed a measure of intraunit justice climate. In the second survey, they completed a measure of teamwork quality. In the last survey, they completed measures of satisfaction with teammates and citizenship behavior.

In the first step of the analyses, Li and Cropanzano (2008) used confirmatory factor analyses to examine the factor structure of the intraunit justice climate measure. Replicating the results reported in Li et al. (2007), Li and Cropanzano found that the three-factor structure of intraunit justice climate was superior to a single-factor model. In the second step of analyses, Li and Cropanzano examined whether individual responses could be aggregated to the team level. Again replicating the earlier study, they found that there was sufficient within-team agreement—as indicated by the within-group interrater agreement index ($r_{wg(j)}$), the intraclass coefficient, and the group mean reliability—which warranted the aggregation of individual responses to the team level.

In the third step of analyses, Li and Cropanzano (2008) conducted path analyses to evaluate their mediational model. They found that intraunit justice climate was related to teamwork quality, unit-level citizenship behavior, and satisfaction with teammates. Teamwork quality, in turn, was related to unit-level citizenship behavior and satisfaction with teammates. Teamwork quality further mediated the relationships between both distributive and procedural intraunit justice climate and satisfaction and OCB.

Closing Thoughts

Although limited, the research reviewed here shows considerable promise. Intraunit justice climate is an identifiable construct, with a measurable factor structure. In addition, it is separated from, though correlated with, justice climate. Finally, intraunit fairness also predicts important workplace outcomes, such as teamwork quality and OCB. Intraunit justice shows no signs of replacing justice climate. Nevertheless, it has incremental validity and may even be a stronger predictor of certain outcomes (Li et al., 2007).

Conclusions

Team-level justice is a promising area of study, but it is also a young one. In recognition of this, we have here emphasized first principles. Based on the work of Morgeson and Hofmann (1999), we have seen that collective fairness is consistent with both the structural and the functional approaches to group-level constructs. Considerable work suggests that interpersonal interactions of various sorts boost justice climate (e.g., Colquitt et al., 2002; Naumann & Bennett, 2000; Roberson, 2006a, 2006b), whereas other findings suggest that fairness shows functional isomorphism across levels of analysis (e.g., Liao & Rupp, 2005; Yang et al., 2007).

Beyond these important meta-theoretical issues, we then discussed the five compositional models proposed by Chan (1998). Here, we observed a need for greater research. Scholars have tended to ignore the additive rule, though it might be applicable in future research. For instance, the number or proportion of fairly treated to unfairly treated individuals could have predictive value. Fortunately, dispersion models have received increasing attention and have shown some utility (cf. Naumann & Bennett, 2000; Roberson, 2006a, 2006b). Considerable research on justice level has made use of both direct consensus and referent shift, and this has brought promising findings as well (e.g., Liao & Rupp, 2005; Rupp et al., 2007b). However, it would be useful for future scholars to follow the lead of Chan (1998), attend carefully to theoretical issues, and distinguish between the referent-shift and direct-consensus compositional models. In this regard, Rupp et al. (2007a, 2007b) have provided invaluable guidance.

Beyond these compositional concerns, we also discussed the origins of unit-level justice in the literatures on SIP (Salancik & Pfeffer, 1978) and ASA (Schneider, 1987). Justice climate has begun to outgrow these general models, drawing more heavily on such fairness-oriented traditions as justice contagion (Degoey, 2000) and FHT (Lind, 1992). Such work has been promising. Scholars now have at least a rudimentary idea of the causes and consequences of justice climate.

Finally, and perhaps most notably, we observed that there were actually two different types of collective justice. Justice climate has amassed a large amount of research (Rupp et al., 2007a). However, intraunit justice climate, the fairness with which teammates treat one another, has also proven to be of value (Cropanzano, Li, & James, 2007). Li et al. (2007) found that intraunit justice climate has incremental validity, and in some cases, stronger effects, than the better known justice climate. Likewise, Li and Cropanzano (2008) found that justice climate exerts its beneficial consequences by prompting higher levels of teamwork quality. This work is still in its infancy, but it is off to a good start.

Theoretical Implications

Given the considerable promise of research on justice climate and intraunit justice climate, scholars have begun to retool their theoretical ideas. In this section, we will briefly review three trends in the literature, suggesting how they may develop in the future.

From the individual's outcomes to collective judgment. At the individual level of analysis, organizational justice researchers have long known that procedural fairness has a greater effect when an outcome is unfair or unfavorable. In other words, people care more about the process when the outcome they obtain is not what they would have preferred (for reviews, see Brockner, 2002; Brockner & Wiesenfeld, 1996). Although this finding is well established, unit-level fairness research adds corollary mechanisms that explain how workers might render fairness judgments without personally experiencing a negative event.

- Drawing on SIP, Roberson (2006a, 2006b) found that people discuss events that occur in their workplaces. Over time, these discussions can produce agreement. This process may be further enhanced as both cognitive and emotional information spread through the process of justice contagion outlined by Degoey (2000). Fairness may result from the process of workplace sense making.
- Based on the deontic theory of justice, Folger and Salvador (in press) argue that we care about more than simply how we are treated. We may respond negatively to the treatment of others even when our own outcomes are not impacted (see Brockner, 1990, for a real-world example). Consequently, justice may be valued for its own sake, and workers may even punish authority figures that harm their teammates (cf. Lerner, 2003).

For justice research, these are intriguing ideas, as they imply that feelings of unfairness need not be based exclusively on the personal receipt of an unfavorable or unfair outcome. Rather, the sense of injustice could spread through a team, even if the team includes individuals who were not personally harmed. Perceptions of fairness, in other words, can sometimes emerge as a property of a collective. We may simply imitate what others think and feel (Degoey, 2000). According to Folger and Salvador (in press), we may also be directly affected by the treatment others receive even if we do not directly interact with them (Turillo et al., 2002). Of course, nothing reviewed in this article denies the importance of individual-level justice. However, the work discussed herein challenges researchers to incorporate the collective sense of fairness into their conceptual models. These are exciting possibilities, signaling a fresh look at workplace fairness. Among other things, unit-level justice research links fairness to other important organizational processes. These include such things as work-team effectiveness (Li & Cropanzano, 2008) and the success of business units (Simons & Roberson, 2003).

Counterintuitive reversals. It is interesting that unit-level justice can occasionally turn "good" things into "bad." For example, Naumann and Bennett (2000) found that group cohesion, which most would view as desirable, produces greater agreement as regards justice climate. This suggests that cohesion might promote a more positive response toward an

employer that is generally fair but a more negative response toward one that is generally unfair. A strong climate could be formed when a cohesive workforce unites against unfairness. From society's point of view, this is probably a good thing as it may prompt organizations to improve their management techniques to the benefit of all. Still, it is interesting that efforts to promote group consensus can backfire on a firm that does not accompany these efforts with fair policies.

In their work on multifoci justice, Bashshur et al. (2008) provide another interesting reversal. These researchers assessed both justice climate that resulted from the action of the organization and justice climate that resulted from the action of the immediate supervisor. Bashshur et al. report some evidence, admittedly limited at this point in time, that employee responses were very negative when they had an unfair supervisor inside a fair organization. If these results are replicated in future studies, it suggests that just organizations could actually be harmed unless they also curtail unfairness from managers.

Leadership. In preparing this article, we were struck by how often leadership, or at least supervision, appeared in the unit-level justice literature. Naumann and Bennett (2000) found that a visible supervisor helped to promote a strong justice climate. Liao and Rupp (2005) and Bashshur et al. (2008) reported that supervisors' efforts on justice climate have an impact beyond that of the organization. The most comprehensive leadership model was Ehrhart's (2004). Ehrhart found that servant leadership was an effective means of building a fair workplace. This collective sense of justice, in turn, increased citizenship behavior. All of these findings fit together, in that they provide specific "action steps" that managers can take to promote fairness. Such actions, besides being worthwhile in their own right, seem to have a positive effect on the organization. Our hope is that the relationship between leadership and justice climate will be the subject of additional scholarly attention in the future.

Closing Thoughts

Philosophers have long maintained that justice is an attribute of social systems as well as a perception by individuals (cf. Nozick, 1974; Rawls, 1971). In a way, research on unit-level fairness provides an empirical confirmation of this moral intuition. A sense of justice can, at least at times, result from the collective perceptions of a work group. As we have discussed, this realization provides considerable challenges to an exclusively individualistic understanding of fairness. However, it also provides opportunities. Organizations that build a strong sense of community based on just treatment are likely to benefit from more favorable worker attitudes and behaviors. Employees, for their part, are apt to experience less stress and more assistance from their coworkers. Such promises, with the potential to benefit supervisors and subordinates alike, should be a priority for scholarly investigations.

Appendix

In this appendix, we have collected some of the available instruments assessing unit-level justice. The scales are listed in the order of the last name of the first author. Full citations can be found in the references section.

Procedural Justice Climate

Aquino, Tripp, and Bies (2006). All five items were rated on a 10-point Likert scale. Anchors ranged from 1 (*very unfair and inconsistent*) to 10 (*very fair and consistent*).

How fairly and consistently each of the following five organizational procedures are applied by the organizations:

- Giving promotion.
- Giving pay raise.
- Terminating employees.
- Disciplining employees.
- Evaluating employee performance.

Colquitt, Noe, and Jackson (2002). All seven items used a 5-point Likert scale. Anchors ranged from 1 (*to a small extent*) to 5 (*to a large extent*).

- Has your team been able to express its views and feelings during those procedures?
- Has your team had influence over the outcomes arrived at by those procedures?
- Have those procedures been applied consistently?
- Have those procedures been free of bias?
- Have those procedures been based on accurate information?
- Has your team been able to appeal the outcomes arrived at by those procedures?
- Have those procedures upheld ethical and moral standards?

Dietz, Robinson, Folger, Baron, and Schultz (2003). All items used a 5-point Likert scale. Anchors ranged from 1 (*strongly agree*) to 5 (*strongly disagree*).

- Supervisors consistently follow the provisions of the national agreements.
- Supervisors or managers often make personnel decisions based on favoritism.
- How would you rate your plant on taking employee interests into account when making important decisions?
- How would you rate your plant on treating employees with respect and dignity as individuals?

Ehrhart (2004). All six items were rated on a 5-point Likert scale. Anchors ranged from 1 (*to a very small extent*) to 5 (*to a large extent*).

- Have procedures been applied consistently in your department?
- Have procedures been free of bias in your department?
- Have people in your department been able to express their views and feelings about those procedures?
- Have procedures in your department upheld ethical and moral standards?

(continued)

Appendix (continued)

Liao and Rupp (2005). All items used a 7-point Likert scale. Anchors ranged from 1 (*strongly agree*) to 7 (*strongly disagree*).

Supervisor procedural justice climate:

- I can count on my supervisor to have fair policies.
- Where I work, my supervisor's procedures and guidelines are very fair.
- My supervisor doesn't have any fair policies. (R)
- The procedures my supervisor uses to make decisions are not fair. (R)

Organizational procedural justice climate:

- The organization's procedures and guidelines are very fair.
- The procedures the organization uses to make decisions are not fair. (R)
- I can count on the organization to have fair policies
- We don't have any fair policies at the organization. (R)

Mossholder, Bennett, and Martin (1998). All seven items used a 5-point Likert scale.

- Overall, how fair are the procedures and policies used by your supervisor and your organization to handle performance appraisal?
- Overall, how fair are the procedures and policies your supervisor and your organization follow in reaching a decision about the size of your pay raises?
- Overall, how fair are the procedures and policies used to determine work conditions (e.g., work load, assignments, etc.)?
- Overall, how fair are the procedures and policies used to determine the benefits you receive?

Naumann and Bennett (2000, 2002). All items were rated on a 5-point Likert scale.
As a whole, the people in my work group feel that around here . . .

- Consistent rules and procedures are used to make decisions about things that affect our group.
- Personal motives or biases influence decisions that affect our group. (R)
- Decisions that affect our group are made ethically.
- Accurate information is used to make decisions.
- Our input is obtained prior to making decisions.
- We're given the opportunity to modify decisions that have already been made.
- The reasons behind the decisions that affect our group are explained.
- Concern is shown for our rights.
- There is a real interest in trying to be fair to us as a group.

Niehoff and Moorman (1993): As used by Tangirala and Ramanujam (2008) and Lin, Tang, Li, Wu, and Lin (2007). All items used a 7-point Likert scale.

- Job decisions are made by the general manager in an unbiased manner.
- My general manager makes sure that all employee concerns are heard before job decisions are made.

(continued)

Appendix (continued)

- To make job decisions, my general manager collects accurate and correct information.
- My general manager clarifies decisions and provides additional information when requested by employees.
- All job decisions are applied consistently across all affected employees.
- Employees are allowed to challenge or appeal job decisions made by the general manager.

Procedural Justice Climate and Interactional Justice Climate: Simons and Roberson (2003). All items used a 5-point Likert scale. Anchors ranged from 1 (*strongly agree*) to 5 (*strongly disagree*).

Procedural justice climate:

- Employees can challenge or appeal management decisions.
- Hotel management staff hear all employees' concerns before making job decisions.
- To make decisions about our jobs, hotel management staff collect good information.

Interactional justice climate: When hotel management staff make decisions about my job, they . . .

- Are sensitive to my personal needs.
- Show concern for my rights as an employee.
- Deal with me honestly.
- Treat me kindly.

Intraunit Justice Climate

Li, Cropanzano, and Benson (2007). All items used a 5-point Likert scale. Anchors ranged from 1 (*strongly disagree*) to 5 (*strongly agree*).

Distributive intraunit justice climate:

- Some of my teammates have received a better grade for the team projects than they would have deserved.
- The grade that my teammates have received for the projects is appropriate considering the quality of the work they have completed.
- Some of my teammates did not do their share of the work, even though we have all received the same grade for the projects. (R)
- Some of my teammates did not meet their responsibilities, even though we have all received the same grade for the projects. (R)
- Some of my teammates put forth much less effort than other members of my team, even though we have all received the same grade for the projects. (R)

Procedural intraunit justice climate:

- My teammates are able to express their views and feelings about the way decisions are made in the team.
- The way my teammates make decisions is free from personal bias.

(continued)

Appendix (continued)

- My teammates ignore each other's inputs to the project. (R)
- My teammates use correct information for the project.
- The way my teammates make decisions is applied consistently.

Interactional intraunit justice climate:

- My teammates help each other out.
- My teammates argue with each other. (R)
- My teammates put each other down. (R)
- My teammates treat each other with respect.

Note: R = reversed coded

References

Adams, J. S. 1963. Toward an understanding of inequity. *Journal of Abnormal and Social Psychology*, 67: 422-436.

Adams, J. S. 1965. Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social* psychology, vol. 2: 267-299. New York: Academic Press.

Ambrose, M. L., Harland, L. K., & Kulik, C. T. 1991. Influence of social comparisons on perceptions of organizational fairness. *Journal of Applied Psychology*, 76: 239-246.

Ambrose, M. L., & Schminke, M. 2007. Examining justice climate: Issues of fit, simplicity, and content. In F. Dansereau & F. J. Yammarino (Eds.), *Research In Multi-level Issues*, vol. 6: 397-413. New York: Elsevier.

Aquino, K., Tripp, T. M., & Bies, R. J. 2006. Getting even or moving on? Power, procedural justice, and types of offense as predictors of revenge, forgiveness, reconciliation, and avoidance in organizations. *Journal of Applied Psychology*, 91: 653-668.

Autry, J. A. 2004. *The servant leader: How to build a creative team, develop great morale, and improve bottom-line performance.* New York: Three Rivers Press.

Bashshur, M. R., Rupp, D. E., Christopher, J., Ko, J., & Nam, K. 2008. *An investigation of differential justice climate compositional models and multifoci climate alignment: Implications for multilevel research in organizational justice*. Working paper.

Bies, R. J. 1987. The predicament of injustice: The management of moral outrage. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*, vol. 9: 289-319. Greenwich, CT: JAI Press.

Bies, R. J. 2001. Interactional (in)justice: The sacred and the profane. In J. Greenberg & R. Cropanzano (Eds.), *Advances in organizational justice:* 89-118. Stanford, CA: Stanford University Press.

Bies, R. J. 2005. Are procedural justice and interactional justice conceptually distinct? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice:* 85-112. Mahwah, NJ: Lawrence Erlbaum.

Bies, R. J., & Moag, J. S. 1986. Interactional justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on negotiation in organizations:* 43-55. Greenwich, CT: JAI Press.

Bliese, P., Chan, D., & Ployhart, R. E. 2008. Multilevel methods: Future directions in measurement, longitudinal analyses, and nonnormal outcomes. *Organizational Research Methods*, 10: 551-563.

Branscombe, N. R., Spears, R., Ellemers, N., & Doosje, B. 2002. Intragroup and intergroup evaluation effects on group behavior. *Personality and Social Psychology Bulletin*, 28: 744-753.

Brockner, J. 1990. Scope of justice in the workplace: How survivors react to co-worker layoffs. *Journal of Social Issues*, 46: 95-106.

Brockner, J. 2002. Making sense of procedural fairness: How high procedural fairness can reduce or heighten the influence of outcome favorability. *Academy of Management Review*, 27: 58-76.

Brockner, J., DeWitt, R., Grover, S., & Reed, T. 1990. When it is especially important to explain why: Factors affecting the relationship between managers' explanations of a layoff and survivors' reactions to the layoff. *Journal of Experimental Social Psychology*, 26: 389-407.

Brockner, J., Grover, S., Reed, T., DeWitt, R., & O'Malley, M. 1987. Survivors' reactions to layoffs: We get by with a little help for our friends. *Administrative Science Quarterly*, 32: 526-541.

Brockner, J., & Wiesenfeld, B. M. 1996. An integrative framework for explaining reactions to decisions: Interactive effects of outcomes and procedures. *Psychological Bulletin*, 120: 189-208.

Bryk, A. S., & Raudenbush, S. W. 1992. *Hierarchical linear models*. Newbury Park, CA: Sage.

Chan, D. 1998. Functional relations among constructs in the same content domain at different levels *of* analysis: A typology *of* composition models. *Journal of Applied Psychology*, 83: 234-246.

Chen, G., & Bliese, P. D. 2002. The role of different levels of leadership in predicting self- and collective efficacy: Evidence for discontinuity. *Journal of Applied Psychology*, 87: 549-556.

Chen, X.-P., Lam, S. S. K., Naumann, S. E., & Schaubroeck, J. 2005. Group citizenship behaviour: Conceptualization and preliminary tests of its antecedents and consequences. *Group and Organization Review*, 1: 273-300.

Clayton, S., & Opotow, S. 2003. Justice and identity: Changing perspectives on what is fair. *Personality and Social Psychology Review*, 7: 298-310.

Cohen-Charash, Y., & Spector, P. E. 2001. The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes*, 86: 278-321.

Colquitt, J. A. 2001. On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86: 386-400.

Colquitt, J. A. 2004. Does the justice of the one interact with the justice of the many? Reactions to procedural justice in teams. *Journal of Applied Psychology*, 89: 633-646.

Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. 2001. Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86: 425-445.

Colquitt, J. A., Noe, R. A., & Jackson, C. L. 2002. Justice in teams: Antecedents and consequences of procedural justice climate. *Personnel Psychology*, 55: 83-109.

Cronbach, L. J., & Meehl, P. H. 1955. Construct validity in psychological tests. *Psychological Bulletin*, 52: 281-302.

Cropanzano, R., Bowen, D. E., & Gilliland, S. W. 2007. The management of organizational justice. *Academy of Management Perspectives*, 21: 34-48.

Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. E. 2001. Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior*, 58: 164-209.

Cropanzano, R., Goldman, B., & Benson, L., III. 2005. Organizational justice. In J. Barling, K. Kelloway, & M. Frone (Eds.), *Handbook of work stress:* 63-87. Thousand Oaks, CA: Sage.

Cropanzano, R., Goldman, B. M., & Folger, R. 2003. Deontic justice: The role of moral principles in workplace fairness. *Journal of Organizational Behavior*, 24: 1019-1024.

Cropanzano, R., Goldman, B. M., & Folger, R. 2005. Self-interest: Defining and understanding a human motive. *Journal of Organizational Behavior*, 26: 985-991.

Cropanzano, R., Li, A., & James, K. 2007. Intraunit justice and interunit justice and the people who experience them. In F. Dansereau & F. J. Yammarino (Eds.), *Research in Multi-Level Issues*, vol. 6: 415-437. Oxford, UK: Elsevier.

Cropanzano, R., & Mitchell, M. S. 2005. Social exchange theory: An interdisciplinary review. *Journal of Management*, 31: 874-900.

Cropanzano, R., Prehar, C. A., & Chen, P. Y. 2002. Using social exchange theory to distinguish procedural from interactional justice. *Group & Organization Management*, 27: 324-351.

Cropazano, R., & Rupp, D. E. in press. Social exchange theory and organizational justice: Job performance, citizenship behaviors, multiple foci, and a historical integration of two literatures. In S. Gilliland, D. Steiner, & D. Skarlicki (Eds.), *Research in social issues in management: Justice, morality, and social responsibility.* Greenwich CT: Information Age Publishing.

Cropanzano, R., Rupp, D. E., Mohler, C. J., & Schminke, M. 2001. Three roads to organizational justice. In G. R. Ferris (Ed.), *Research in personnel and human resources management*, vol. 20: 1-113. Greenwich, CT: JAI Press.

Cropanzano, R., Stein, J., & Goldman, B. M. 2007. Self-interest. In E. H. Kessler & J. R. Bailey (Eds.), *Handbook of organizational and managerial wisdom:* 181-221. Los Angeles, CA: Sage.

Cropanzano, R., & Wright, T. A. in press. The impact of organizational justice on occupational health. In J. C. Quick & L. E. Tetrick (Eds.), *Handbook of occupational health psychology.* Washington, DC: American Psychological Association.

De Cremer, D. 2002. Respect and cooperation in social dilemmas: The importance of feeling included. *Personality and Social Psychology Bulletin*, 28: 1335-1341.

Degoey, P. 2000. Contagious justice: Exploring the social construction of justice in organizations. *Research in Organizational Behavior*, 22: 51-102.

Dietz, J., Robinson, S. L., Folger, R., Baron, R. A., & Schultz, M. 2003. The impact of community violence and an organization's procedural justice climate on workplace aggression. *Academy of Management Journal*, 46: 317-326.

Donovan, M. A., Drasgow, F., & Munson, L. J. 1998. The Perceptions of Fair Interpersonal Treatment Scale: Development and validation of a measure of interpersonal treatment in the workplace. *Journal of Applied Psychology*, 83: 683-692.

Dulebohn, J. H., & Martocchio, J. J. 1998. Employee perceptions of the fairness of work group incentive pay plans. *Journal of Management*, 24: 469-488.

Ehrhart, M. G. 2004. Leadership and procedural justice climate as antecedents of unit-level organizational citizenship behavior. *Personnel Psychology*, 57: 61-94.

Ellard, J. H., & Skarlicki, D. P. 2002. A third-party observers' reactions to employee mistreatment: Motivational and cognitive processes in deservingness assessments. In S. W. Gilliland, D. D. Steiner, & D. P. Skarlicki (Eds.), *Research in social issues in management:* 133-158. Greenwich, CT: Information Age Publishing.

Ellemers, N., Doosje, B., & Spears, R. 2004. Sources of respect: The effects of being liked by ingroups and outgroups. *European Journal of Social Psychology*, 34: 155-172.

Folger, R., & Cropanzano, R. 1997. *Organizational justice and human resource management.* Beverly Hills, CA: Sage.

Folger, R., & Salvador, R. in press. Is management theory too "self-ish"? *Journal of Management.*

Frohlich, N. 2007. A very short history of distributive justice. *Social Justice Research*, 20: 250-262.

Frohlich, N., & Oppenheimer, J. A. 1992. *Choosing justice: An experimental approach to ethical theory*. Berkeley: University of California Press.

George, J. M. 1992. Extrinsic and intrinsic origins of perceived social loafing in organizations. *Academy of Management Journal*, 35: 191-202.

Giberson, T. R., Resick, C. J., & Dickson, M. W. 2005. Embedding leader characteristics: An examination of homogeneity of personality and value in organizations. *Journal of Applied Psychology*, 90: 1002-1010.

Gilliland, S. W. 1994. The perceived fairness of selection systems: An organizational justice perspective. *Academy of Management Review*, 18: 694-734.

Glomb, T. M., & Liao, H. 2003. Interpersonal aggression in work groups: Social influence, reciprocal, and individual effects. *Academy of Management Journal*, 46: 486-496.

Goldman, B., Cropanzano, R., Stein, J., & Benson, L. 2008. The role of third-parties/mediation in resolving conflict in organizations. In M. J. Gelfand & C. K. W. De Dreu (Eds.), *The psychology of conflict and conflict management in organizations* [SIOP Frontiers Series]: 291-320. Mahwah, NJ: Lawrence Erlbaum.

Greenleaf, R. K. 2003. *The servant-leader within: A transformative path.* Mahwah, NJ: Paulist Press.

Greenleaf, R. K. 2005. *Servant leadership: A journey into the nature of legitimate power and greatness* (25th anniversary edition). Mahwah, NJ: Paulist Press.

Hafer, C. L., & Olson, J. M. 2003. An analysis of empirical research on the scope of justice. *Personality and Social Psychology Review*, 7: 311-323.

Hoegl, M., & Gemuenden, H. G. 2001. Teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. *Organization Science*, 12: 435-449.

James, L. R., Demaree, R. G., & Wolf, G. 1984. Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69: 85-98.

Jones, D. A., & Skarlicki, D. P. 2005. The effects of overhearing peers discuss an authority's fairness reputation on reactions to subsequent treatment. *Journal of Applied Psychology*, 90: 363-372.

Jones, R. G., & Lindley, W. D. 1998. Issues in the transition to teams. *Journal of Business and Psychology*, 13: 31-40.

Kahneman, D., Knetsch, J. L., & Thaler, R. H. 1986. Fairness and the assumptions of economics. *Journal of Business*, 59: 285-300.

Kanfer, R., Sawyer, J., Earley, P. C., & Lind, E. A. 1987. Participation in task evaluation procedures: The effects of influential opinion expression and knowledge of evaluative criteria on attitudes and performance. *Social Justice Research*, 1: 235-249.

Kirkman, B. L., Shapiro, D. L., Novelli, L., Jr., & Brett, J. M. 1996. Employee concerns regarding self-managing work teams: A multidimensional justice perspective. *Social Justice Research*, 9: 47-67.

Kirkman, B. L., Jones, R. G., & Shapiro, D. L. 2000. Why do employees resist teams? Examining the "resistance barrier" to work team effectiveness. *The International Journal of Conflict Management*, 11: 74-92.

Konovsky, M. A. 2000. Understanding procedural justice and its impact on business organizations. *Journal of Management*, 26: 489-511.

Konovsky, M. A., & Brockner, J. 1993. Managing victim and survivor layoff reactions: A procedural justice perspective. In R. Cropanzano (Ed.), *Justice in the workplace: Approaching fairness in human resources management:* 133-154. Hillsdale, NJ: Lawrence Erlbaum.

Konovsky, M. A., & Cropanzano, R. 1991. Perceived fairness of employee drug testing as a predictor of employee attitudes and job performance. *Journal of Applied Psychology*, 76: 698-707.

Korsgaard, M. A., & Roberson, L. 1995. Procedural justice in performance evaluation: The role of instrumental and non-instrumental voice in performance appraisal discussions. *Journal of Management*, 21: 657-669.

Kray, L. J., & Lind, E. A. 2002. The injustices of others: Social reports and the integration of others' experiences in organizational justice judgments. *Organizational Behavior and Human Decision Processes*, 89: 906-924.

Lavelle, J. J., Rupp, D. E., & Brockner, J. 2007. Taking a multifoci approach to the study of justice, commitment, and organizational citizenship behavior: The target similarity model. *Journal of Management*, 33: 841-866.

Lerner, M. J. 2003. The justice motive: Where social psychologists found it, how they lost it, and why they may not find it again. *Personality and Social Psychology Review*, 7: 388-389.

Leventhal, G. S. 1976. Fairness in social relationships. In J. W. Thibaut, J. T. Spence, & R. C. Carson (Eds.), *Contemporary topics in social psychology:* 211-240. Morristown, NJ: General Learning Press.

Leventhal, G. S. 1980. What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research:* 27-55. New York: Plenum.

Leventhal, G. S., Karuza, J., & Fry, W. R. 1980. Beyond fairness: A theory of allocation preferences. In G. Mikula (Ed.), *Justice and social interaction:* 167-218. New York: Springer-Verlag.

Li, A., & Cropanzano, R. 2008. A theory of intraunit justice climate and team effectiveness. Paper presented at the annual meeting of the Academy of Management, Anaheim, CA.

Li, A., Cropanzano, R., & Benson, L. 2007. *Intraunit justice climate: Explication and validation of a new construct.* Paper presented at the annual meeting of the Academy of Management, Philadelphia.

Liao, H., & Rupp, D. E. 2005. The impact of justice climate and justice orientation on work outcomes: A cross-level multifoci framework. *Journal of Applied Psychology*, 90: 242-256.

Lin, S.-P., Tang, T.-W., Li, C.-H., Wu, C.-M., & Lin, H.-H. 2007. Mediating effect of cooperative norm in predicting organizational citizenship behaviors from procedural justice climate. *Psychological Reports*, 101: 67-78.

Lind, E. A. 1992. *Procedural justice and procedural preferences: Evidence for a fairness heuristic*. Paper presented at the annual meeting of the International Association of Conflict Management, Minneapolis, MN.

Lind, E. A. 1995. Justice and authority in organizations. In R. Cropanzano & M. K. Kacmar (Eds.), *Organizational politics, justice, and support: Managing the social climate of the workplace:* 83-96. Westport, CT: Quorum.

Lind, E. A. 2001. Fairness heuristic theory: Justice judgments as pivotal cognitions in organizational relations. In J. Greenberg & R. Cropanzano (Eds.), *Advances in organizational justice:* 56-88. Stanford, CA: Stanford University Press.

Lind, E. A., Kray, L., & Thompson, L. 1998. Primary effects in justice judgments: Testing predictions from fairness heuristic theory. *Organizational Behavior and Human Decision Processes*, 85: 189-201.

Markovsky, B., & Younts, C. W. 2001. Prospects for distributive justice theory. *Social Justice Research*, 14: 45-59.

Masterson, S. S., Byrne, Z. S., & Mao, H. 2005. Interpersonal and informational justice: Identifying the differential antecedents of interactional justice behaviors. In S. W. Gilliland, D. D. Steiner, D. P. Skarlicki, & K. van den Bos (Eds.), *What motivates fairness in organizations?* 79-103. Greenwich, CT: Information Age Publishing.

Masterson, S. S., Lewis, K., Goldman, B. M., & Taylor, M. S. 2000. Integrating justice and social exchange: The differing effects of fair procedures and treatment on work relationships. *Academy of Management Journal*, 43: 738-748.

Mayer, D., Nishii, L., Schneider, B., & Goldstein, H. 2007. The precursors and products of justice climates: Group leader antecedents and employee attitudinal consequences. *Personnel Psychology*, 60: 929-963.

Messick, S. 1981. Constructs and their vicissitudes in educational and psychological measurement. *Psychological Bulletin*, 89: 575-588.

Moliner, C., Martinez-Tur, V., Peiro, J. M., Ramos, J., & Cropanzano, R. 2005. Relationships between organizational justice and burnout at the work-unit level. *International Journal of Stress Management*, 12: 99-116.

Moorman, R. R. 1991. Relationship between organizational justice and organizational citizenship behavior: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76: 845-855.

Morgeson, F. P., & Hofmann, D. A. 1999. The structure and function of collective constructs: Implications for multilevel research and theory development. *Academy of Management Review*, 24: 249-265.

Mossholder, K. W., Bennett, N., & Martin, C. L. 1998. A multilevel analysis of procedural justice context. *Journal of Organizational Behavior*, 19: 131-141.

Naumann, S. E., & Bennett, N. 2000. A case for procedural justice climate: Development and test of a multilevel model. *Academy of Management Journal*, 43: 881-889.

Naumann, S. E., & Bennett, N. 2002. The effects of procedural justice climate on work group performance. *Small Group Research*, 33: 361-377.

Niehoff, B. P., & Moorman, R. H. 1993. Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal*, 36: 527-556.

Nozick, R. 1974. *Anarchy, state, and utopia.* New York: Basic Books.

Phillips, J. M. 2002. Antecedents and consequences of procedural justice perceptions in hierarchical decision-making teams. *Small Group Research*, 33: 32-64.

Phillips, J. M., Douthitt, E. A., & Hyland, M. M. 2001. The role of justice in team member satisfaction with the leader and attachment to the team. *Journal of Applied Psychology*, 86: 316-325.

Rawls, J. 1971. *A theory of justice.* Cambridge, MA: Harvard University Press.

Roberson, Q. M. 2006a. Justice in teams: The activation and role of sensemaking in the emergence of justice climates. *Organizational Behavior and Human Decision Processes*, 100: 177-192.

Roberson, Q. M. 2006b. Justice in teams: The effects of interdependence and identification on referent choice and justice climate strength. *Social Justice Research*, 19: 323-344.

Roberson, Q. M., & Colquitt, J. A. 2005. Shared and configural justice: A social network model of justice in teams. *Academy of Management Review*, 30: 595-607.

Rupp, D. E., Bashshur, M. R., & Liao, H. 2007a. Justice climate past, present, and future: Models of structure and emergence. In F. Dansereau & F. Yammarino (Eds.), *Research in multilevel issues*, vol. 6: 357-396. Oxford, UK: Elsevier.

Rupp, D. E., Bashshur, M. R., & Liao, H. 2007b. Justice climate: Consideration of the source, target, specificity, and emergence. In F. Dansereau & F. Yammarino (Eds.), *Research in multilevel issues*, vol. 6: 439-459. Oxford, UK: Elsevier.

Rupp, D. E., & Bell, C. in press. Retribution, moral self regulation and self interest in the decision to punish: A moral motives extension of the deontic model of justice. *Business Ethics Quarterly.*

Rupp, D. E., & Cropanzano, C. 2002. The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational Behavior and Human Decision Processes*, 89: 925-946.

Sabbagh, C. 2001. A taxonomy of normative and empirically oriented theories of distributive justice. *Social Justice Research*, 14: 237-263.

Salancik, G. R., & Pfeffer, J. 1978. A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23: 224-253.

Scarpello, V., & Jones, F. F. 1996. Why justice matters in compensation decision making. *Journal of Organizational Behavior*, 17: 285-299.

Schneider, B. 1987. The people make the place. *Personnel Psychology*, 40: 437-454.

Schneider, B., Goldstein, H., & Smith, D. B. 1995. The ASA framework: An update. *Personnel Psychology*, 48: 747-773.

Schneider, B., Smith, D. B., Taylor, S., & Fleenor, J. 1998. Personality and organizations: A test of the homogeneity of personality hypothesis. *Journal of Applied Psychology*, 83: 462-470.

Schwab, D. P. 1980. Construct validity in organizational behavior. In B. M. Staw & L. L. Cummings (Eds.), *Research in organizational behavior*, vol. 2: 3-43. Greenwich, CT: JAI Press.

Seibert, S. E., Silver, S. R., & Randolph, W. A. 2004. Taking empowerment to the next level: A multiple-level model of empowerment, performance, and satisfaction. *Academy of Management Journal*, 47: 332-349.

Shaw, J. C., Wild, E., & Colquitt, J. A. 2003. To justify or excuse? A meta-analytic review of the effects of explanations. *Journal of Applied Psychology*, 88: 444-458.

Sheppard, B. H., Lewicki, R. J., & Minton, J. W. 1993. *Organizational justice: The search for fairness in the workplace.* Lexington, MA: Lexington Books.

Simon, B., & Sturmer, S. 2003. Respect for group members: Intragroup determinants of collective identification and group-serving behavior. *Personality and Social Psychology Bulletin*, 29: 183-193.

Simon, B., & Sturmer, S. 2005. In search of the active ingredient of respect: A closer look at the role of acceptance. *European Journal of Social Psychology*, 35: 809-818.

Simons, T., & Roberson, Q. 2003. Why managers should care about fairness: The effects of aggregate justice perceptions on organizational outcomes. *Journal of Applied Psychology*, 88: 432-443.

Sitkin, S. B., & Bies, R. J. 1993. Social accounts in conflict situations: Using explanations to manage conflict. *Human Relations*, 46: 349-370.

Sitkin, S. B., Sutcliffe, K. M., & Reed, G. L. 1993. Prescriptions for justice: Using social accounts to legitimate the exercise of professional control. *Social Justice Research*, 6: 87-111.

Skarlicki, D. P., Ellard, J. H., & Kelln, B. R. C. 1998. Third-party perceptions of a layoff: Procedural, derogation, and retributive aspects of justice. *Journal of Applied Psychology*, 83: 119-127.

Skarlicki, D. P., & Kulik, C. 2005. Third party reactions to employee mistreatment: A justice perspective. In B. Staw & R. Kramer (Eds.), *Research in organizational behavior*, vol. 26: 183-230. Greenwich, CT: JAI Press.

Spell, C. S., & Arnold, T. J. 2007. A multi-level analysis of organizational justice climate, structure, and employee mental health. *Journal of Management*, 33: 724-751.

Sutton, R. I. 2007. *The no asshole rule: Building a civilized workplace and surviving one that isn't.* New York: Business Plus.

Tangirala, S., & Ramanujam, R. 2008. Employee silence on critical work issues: The cross level effects of procedural justice climate. *Personnel Psychology*, 61: 37-68.

Turillo, C. J., Folger, R., Lavelle, J. J., Umpress, E. E., & Gee, J. O. 2002. Is virtue its own reward? Self-sacrificial decisions for the sake of fairness. *Organizational Behavior and Human Decision Processes*, 89: 839-865.

van den Bos, K., & Lind, E. A. 2001. The psychology of own versus others' treatment: Self-oriented and other-oriented effects on perceptions of procedural justice. *Personality and social Psychology Bulletin*, 27: 1324-1333.

van den Bos, K., Lind, E. A., & Wilke, H. A. M. 2001. The psychology of procedural and distributive justice viewed from the perspective of fairness heuristic theory. In R. Cropanzano (Ed.), *Justice in the workplace: From theory to practice*, vol. 2: 49-66. Mahwah, NJ: Lawrence Erlbaum.

van den Bos, K., Vermunt, R., & Wilke, H. A. M. 1997. Procedural and distributive justice: What is fair depends more on what comes first than on what comes next. *Journal of Personality and Social Psychology*, 77: 95-104.

Weiss, H. M., & Nowicki, C. E. 1981. Social influences on task satisfaction: Model competence and observer field dependence. *Organizational Behavior and Human Performance*, 27: 345-366.

Yang, J., Mossholder, K. W., & Peng, T. K. 2007. Procedural justice climate and group power distance: An examination of cross-level interaction effects. *Journal of Applied Psychology*, 92: 681-692.